

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph bridging pages 2 and 3 with the following amended paragraph:

In case where a phase shift mask blank or a phase shift mask is produced by the use of the glass substrate with the convex protrusions having a height on the order of several nanometers, change in phase angle due to presence of the convex protrusions becomes greater to cause phase defects as an exposure wavelength of exposure light becomes shorter. As the exposure wavelength becomes shorter, the influence of the convex protrusions becomes greater. The problem of the phase defects is serious in next-generation lithography using an ArF excimer laser, an F₂ excimer laser, or an EUV (Extreme Ultra Violet) light source as an exposure light source. For example, it is assumed that the convex protrusions have a height of 5 nm. If the exposure light is ArF having the wavelength of 193 nm, the change in phase angle is 4.6 degrees. If the exposure light is F₂ having the wavelength of 157 nm, the change in phase angle is 5.7 degrees. Consideration will be made about the case where an EUV reflective mask blank or an EUV reflective mask is produced by the use of the glass substrate with the convex protrusions having a height on the order of several nanometers. If the convex protrusions have a height of 5 nm, the change in phase angle exceeds 20 degrees when the exposure wavelength is 13.5 nm. ~~The~~ This change in phase angle results in increased error and degradation of CD (Critical Dimension) ~~error~~ characteristics, which is ~~an-unnegligible~~ not a negligible problem.

Please replace the second full paragraph on page 7 with the following amended paragraph:

In the following description, fine convex surface defects (hereinafter may simply be called "protrusion defects") represent convex protrusions containing Si and O as main components and having a height on the order of several nanometers and another dimension ranging from several tens of nanometers to 2000 nanometers.

Please replace the second full paragraph on page 20 with the following amended paragraph:

In the polishing process of each of the specific examples, a double-sided polishing apparatus is used. Referring to the sole figure, the double-sided polishing apparatus 1 of a planetary gear system comprises a sun gear 2, an internal gear 3 disposed outside the sun gear 2 to be concentric therewith, a carrier 4 which is engaged with the sun gear 2 and the internal gear 3 to be rotated and revolved in response to the rotation of the sun gear 2 and the internal gear 3 and which is adapted to hold an object (glass substrate) 5 to be polished, upper and lower surface tables 7 and 8 adapted to clamp the object 5 and provided with polishing pads 6 adhered thereto, respectively, and a polishing liquid supply portion 9 (not shown) for supplying a polishing liquid to an area between the upper and the lower surface tables 7 and 8.

Please replace the paragraph bridging pages 20 and 21 with the following amended paragraph:

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The double-sided polishing apparatus 1 is connected to an operation control portion (not shown) for setting and controlling the rotation speed and the rotation time of each of the sun gear 2, the internal gear 43, the upper surface table 7, and the lower surface table 8 and a load sequence (polishing time and working load). In accordance with a preselected rotation speed and a preselected rotation time of each of the sun gear 2, the internal gear 43, the upper surface table 7, and the lower surface table 8 and a preselected working load, the object 5 is polished.